HOME CANNING OF MEAT

AWI-110

Reminders for success

- ✓ Only good fresh meat for canning
- ✓ Meat, utensils, everything clean
- ✓ Directions up to date
- ✓ Steam-pressure canner in good order
- ✓ Glass jars or tin cans—seal airtight
- ✓ Store cool and dry

U. S. DEPARTMENT OF AGRICULTURE

Many families can chicken, beef, and other home-produced meats to help spread the supply through the year.

With canned meat on the shelf, you'll quickly have a savory stew, meat pie, or many another good dish . . . timesavers for busy days.

Directions given here tell how to can meat safely and so as to hold food value and flavor.

What to can.—Beef, veal, mutton, lamb, pork, and rabbit are all successfully canned at home. So are various kinds of poultry—chicken, duck, goose, guinea, squab, turkey. Meat of large-game animals may be canned like beef; that of game birds and small-game animals like poultry.

What not to can.—Mixtures such as the following are not recommended for home canning: Chile con carne . . . hash and stews made with vegetables . . . head cheese . . . liver paste . . . pork and beans . . . scrapple. . . soups made with cereals and vegetables.

Commercial canners succeed with these specialties because they have the needed equipment and laboratories to check their results. For the home canner, it is safer to can each food by itself and combine when ready to serve.

Fresh . . . clean . . . cold.—Can only meat from healthy animals in tiptop condition, slaughtered and handled in a strictly sanitary way.

After killing, chill meat at once and keep it chilled until canning time; or else can the meat as soon as body heat is gone from it. Chilled meat is easier to handle.

Chilling calls for refrigeration or for weather that can be counted on to keep the meat at 40° F. or lower. Meat held at temperatures near freezing may be canned at any convenient time within a few days after killing.

Avoid freezing meat, if possible.—If meat does freeze, keep it frozen until canning time. Thawed meat is very perishable. Cut or saw the frozen meat into strips 1 or 2 inches thick just before canning.

Choice of ways to heat and pack.—There are two ways of packing meat for home canning. One is the hot pack. The other is the raw pack. The Canning Timetable tells how to use these methods for different kinds of meat.

Don't fry.—It's best not to fry meat before canning. The brown crust that tastes so good in fresh-cooked chicken or steak becomes dry and hard and the canned meat may even have a disagreeable flavor.

Salt.—Salt does not help preserve meat in canning. Add it if you wish.

USE A STEAM-PRESSURE CANNER

For safe canning, meat must be heated through and through in a canner. "Processing" is the word for this. The meat must be processed at sufficiently high temperature and held there long enough to make sure of killing bacteria that cause dangerous spoilage.

The only practical way to get this high temperature is by using a steam-pressure canner. By holding steam under pressure this way you can quickly get a temperature of 240° F. or more.

If meat is not properly processed, it may spoil or even lead to serious food poisoning.

If you have no steam-pressure canner, try to team with a neighbor who has one, or go to a food-preservation center where there is steam-pressure equipment. Otherwise, preserve the meat some other way—by curing or freezing.

It is not safe to can meat in—**a boiling-water bath, an oven, a steamer without pressure, or an open kettle. None of these will heat the meat hot enough to kill dangerous bacteria in a reasonable time.**

Oven canning is impossible with tin cans and not safe with glass jars, for more than one reason. Even though oven temperature goes to 250° F. or higher, food inside jars stays at about boiling—212° F. Moreover this method has caused serious burns and cuts. Jars in an oven may burst, blowing out the oven door.

A pressure saucepan is built for cooking at 15 pounds pressure. Its gage is not marked at the 10 pounds pressure recommended for meat canning, and it is impossible to estimate this pressure accurately enough for safe processing.

YOUR PRESSURE CANNER—3 QUESTIONS

1. Do you live high above sea level?

If so, don't forget that you must use more pressure in your canner to heat meat all the way through to 240° F.

The general directions call for canning meat at 10 pounds steam pressure, 240° F. Your rule is: For each 2,000 feet above sea level, add 1 pound of pressure. Process for the length of time given in the Canning Timetable (pp. 10–14).

2. Is your pressure gage accurate?

A weighted gage needs only to be thoroughly clean; it needs no adjustment.

A dial gage should be checked before the canning season, oftener if you use the canner a great deal. Ask your county home demonstration agent, your dealer, or manufacturer about checking. If the test shows your gage is "off," tie a tag on the canner stating how far off it is.

If it reads 5 pounds or more off, you'd better get a new one. But if it is 1 to 4 pounds off, you can correct it this way:

The meat is to be processed at 10 pounds steam pressure.

So if the gage reads high—

1 pound high—process at 11 pounds.
2 pounds high—process at 12 pounds.
3 pounds high—process at 13 pounds.
4 pounds high—process at 14 pounds.

If the gage reads low—

1 pound low—process at 9 pounds.
2 pounds low—process at 8 pounds.
3 pounds low—process at 7 pounds.
4 pounds low—process at 6 pounds.

3. Is the canner thoroughly clean?

Wash the canner kettle well, before and after each using. Don't wash the lid—just wipe it with a soapy cloth, then with a damp, clean cloth, and dry well.

Keep pet cock and safety valve clear at all times.

When the canner is working.—Follow the manufacturer's directions for your own canner. The pictures on pages 5–9 show how to proceed.

KNIVES, PANS, TABLE TOPS

For success in your canning, have every utensil and piece of equipment just as clean as can be. Leave everything thoroughly clean after the day's work.

Metal, enamelware, porcelain.—Scrub with hot soapy water; rinse with boiling water.

Wood.—Cutting boards, table tops where meat has rested, and wood utensils need "elbow grease" and special treatment to keep bacteria under control. So scrape them, scrub with hot soapy water, and rinse with boiling water. Then disinfect, using a hypochlorite solution or a chloride of lime bleaching fluid diluted according to directions on can. Let this stay on about half an hour; then wash it off with scalding water.

Linoleum.—Don't let meat lie on linoleum, for scalding and disinfecting are too harsh for linoleum.

Cloths.—Rinse off meat juices with cool water. Then wash cloths in soapy hot water and boil. Rinse in the same kind of disinfectant you use for wood.

IF YOU USE TIN CANS

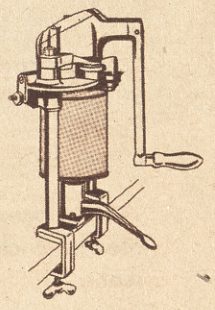
Use plain tin cans, in good condition.—C-enamel and R- or sanitary-enamel cans prevent some foods from discoloring, but this is not the case with meats. The fat may cause enamel to peel off, and, while this is not harmful, it makes the canned meat look unattractive. So use only plain tin cans for meat, preferably with paper gaskets.

See that cans, lids, and gaskets are perfect. Discard badly bent, dented, or rusty cans and lids with scratched or torn gaskets.

Sizes to use:

No. 2 can—holds 2½ cups (20 ounces)
No. 2½ can—holds 3½ cups (28 ounces)
No. 3 can—holds about 4 cups (33 ounces)

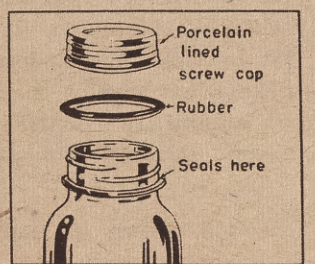
Tin cans call for a sealer.—Before you buy tin cans, be sure you have a sealer in good working order, or else arrange to can in tin at a food-preservation center.



Make sure that the sealer you use is properly adjusted. One test is to put a little water into a can, seal it, then cover the can with boiling water and let it stand a few minutes. If air bubbles rise from the can, the seam is not tight, and the sealer needs further adjusting.

IF YOU'RE USING GLASS JARS

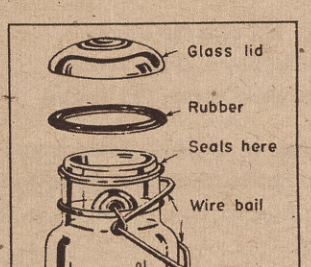
Main types of jars and how to seal them



Zinc porcelain-lined cap with shoulder rubber ring, to fit standard Mason jar.

When canning.—Fit wet ring down on jar shoulder, but don't stretch more than needed. Fill jar. Then screw cap down firmly and turn it back ¼ inch.

After canning.—As soon as you take jar from canner, quickly screw cap down tight, to complete seal.



Lightning-type jar is sealed with glass lid and rubber ring, held in place by wire bail.

When canning.—Fit wet rubber ring on ledge at top of empty jar. Fill jar. Put on glass lid. Push long wire over top of lid, so it fits into groove. Leave short wire up.

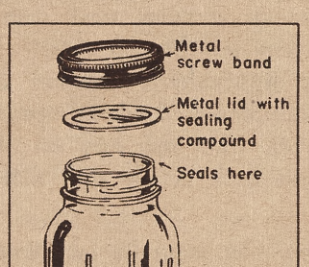
After canning.—As soon as you take jar from canner, quickly push short wire down to complete seal.

Glass lid and top-seal rubber ring, held in place by metal screw band, to fit standard Mason jar.

When canning.—Fill jar; fit rubber ring on glass lid. Put lid on jar with rubber side down. Screw metal band on tight . . . then, using your thumb as a guide, turn back almost a quarter turn, or so that band and jar just mesh together. Caution: If the band is screwed too tight, the jar may break.

After canning.—As soon as you take jar from canner, screw band down tight.

Next day.—When jar has cooled, take off screw band if you can without forcing. If the band sticks, cover for a minute or two with a hot, damp cloth, to loosen.



Flat metal lid edged with sealing compound, held in place by metal screw band, to fit standard Mason jar.

Just before use.—Some of these self-sealing-type lids need boiling, others only a dip in hot water. Follow manufacturer's directions carefully.

When canning.—Fill jar; put lid on so that sealing compound is next to glass. Screw metal band on firmly, but not so hard that you cut through the compound. When screwed down firmly, this lid has enough "give" to let air escape during canning.

After canning.—This is a self-sealer. Leave "as is" when you take from canner. Don't tighten further; you may break the seal.

Next day.—When jar has cooled, take off screw band if you can without forcing. If band sticks, cover for a minute or two with a hot, damp cloth, to loosen.

Sizes to use.—Don't can meat in any jar larger than a quart. Pints are even better than quarts. It takes so long to process meat packed in half gallon jars that some meat is overcooked while there may be "cold spots" within the jar. And in these cold spots spoilage bacteria may survive.

Jars and lids—perfect and clean.—See that you have a lid to make an airtight seal on each jar.

Discard jars or lids with cracks, chips, or dents—any defects preventing airtight seals.

Wash jars in hot soapy water and rinse well; also lids unless manufacturer directs otherwise.

Rubber jar rings.—If a cap calls for a separate rubber ring, use a clean, new ring of the right size for the jar. Don't test by stretching.

Scrub rubber rings with a brush in hot soapy water. Then boil 10 minutes in water and baking soda (1 quart water, 1 tablespoon soda to each dozen rings). Rinse well. Start with fresh soda and water for each lot. This may help keep rings from flavoring food.

HOW TO CAN POULTRY

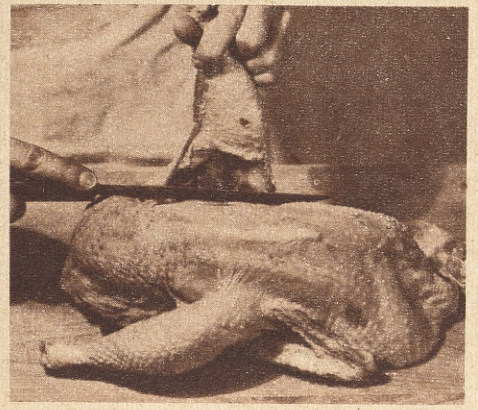
Directions given here for chicken apply also to other poultry, rabbit, and small game. These pictures show the lightning-type glass jars; other types of jars (p. 4) or tin cans may be used.

Directions for canning poultry without bone are given in the Timetable (pp. 10–11).

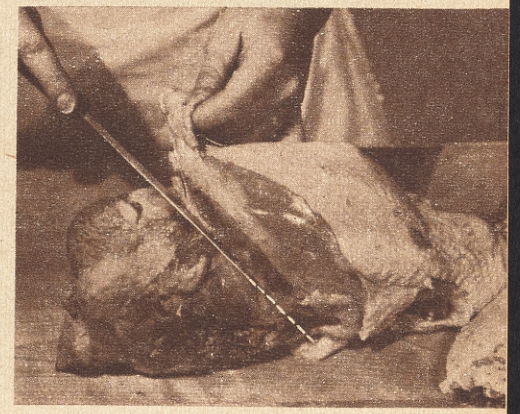
For best flavored canned chicken, select plump stewing hens. Young birds need the same processing, often lack flavor, and may cook to pieces.

A quick and simple way to cut up a bird is shown. Instead of drawing the bird, you cut away the edible pieces.

1. Wash the picked bird, but don't soak it in water. Then wipe with a clean, damp cloth.



2. With a sharp knife, cut off wings and legs at joint. Pulling on wing or leg while cutting will help in disjointing bird



3. Divide the body by cutting from end of breastbone to backbone on a line along ends of ribs. Don't cut so deep that you cut into the body cavity and puncture the entrails. Turn bird over; cut other side the same way.

4. Lay bird on back. Break the backbone. Cut around vent; remove and discard entrails, saving the giblets. Be careful not to break gall bladder or meat will be bitter. Remove and discard lungs and kidneys, and cut off oil sac near tail.

5. Separate breast by cutting straight down between wishbone and point of breast. Leave meat attached to wishbone.

6. Remove breast meat from center bone by carving down side of breast. Leave bone in other meaty piece.

7. Cut legs into drumsticks and second joints. Saw drumsticks off short, if desired. As you cut, trim off large lumps of fat. Sort pieces into 3 piles: Meaty pieces, bony pieces, and giblets.

HOW TO CAN POULTRY . . . .

8. You'll need broth or hot water as liquid. To make broth: Use bony pieces. Cover with cold water; simmer until meat is tender. Drain broth into bowl; skim off fat. Strip meat from bones and, if desired, can as little pieces.

9. Pour hot broth or hot water over raw meaty pieces in cooking pan, to cover meat. Put on lid and precook meat until medium done, or until pieces, when cut, show almost no pink color at the center.

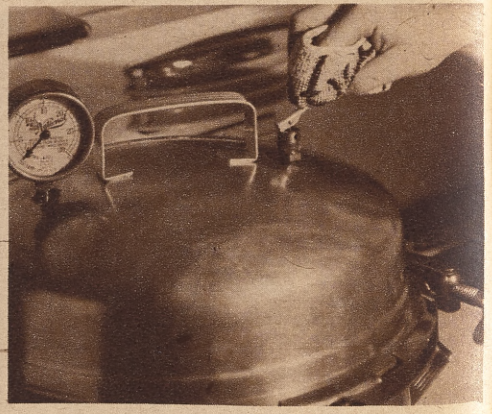
10. If using salt, put level measure in empty glass jars: ½ teaspoon in pint jars; 1 teaspoon in quarts. To heat jars and lids ready for packing, pour about 3 inches of warm water into canner, set in loaded rack, and put on canner lid . . . but don't clamp. Set over heat.

11. When jars are hot and ready for packing, take one at a time from hot water. Work quickly so chicken will be hot when jar is filled.

16. Wipe jar rim and rubber ring clean. One greasy bit can keep the jar from sealing airtight.

17. Put on glass lid so groove on top is at right angles to bail. Push long wire bail over lid into groove. Leave the short wire up, loose. Work quickly.

18. Put each jar back into canner as soon as it's filled. If some of the water in the canner has boiled out, replace it to be sure the canner won't boil dry and be damaged during canning. Fasten lid securely on canner.



19. Let steam pour from open pet cock or weighted gage opening for at least 10 minutes. Then shut pet cock, or put on weighted gage.

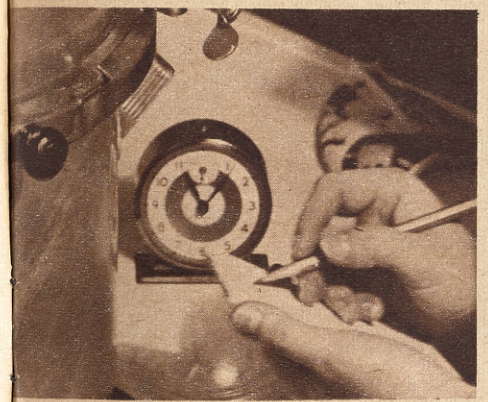
. . . . HOT PACK, WITH BONE

12. Dip a rubber ring in hot water and put the hot ring on jar . . . if using another type of jar, follow directions on page 4 for adjusting rubbers and tops.

13. Pack second joints and drumsticks with skin next to glass; breast in center of jar; smaller pieces fitted in. Leave about 1 inch at the top for head space.

14. Cover chicken with hot broth, using about ½ to ¾ cup for each quart jar. Again leave 1 inch for head space.

15. Work out air bubbles in jar by pushing a knife blade down the sides. Add more broth, if needed, to cover chicken, but be sure to leave 1 inch head space.



20. When pressure is at 10 pounds, note the time . . . adjust heat under canner to keep pressure steady. Process chicken with bone 65 minutes for pint jars; 75 for quarts. Watch the clock. When time's up, slide canner away from heat.

21. To keep from drawing liquid out of glass jars, let pressure fall to zero. This will take about half an hour. Then wait a minute or two, no longer, before slowly opening pet cock. Unfasten lid and tilt far side up, to keep steam away from your face.

22. Take out jars; quickly push the short wire down to complete seal of each jar. Protect your hands with thick cloth. Set jars out to cool right side up, on a rack or thick cloth or paper. Keep jars away from drafts and sudden cold. Don't cover.

23. Let jars cool overnight. Then test for leaks by turning jar partly over in hands. Don't try this with jars of self-sealing type . . . tap lid with spoon—a ringing sound means a good seal, a dull flat note a poor seal.

HOW TO CAN PORK . . . .

These pictures show fresh pork. Beef and other lean meats may be canned the same way. Glass jars (see p. 4) may be used as well as tin cans.

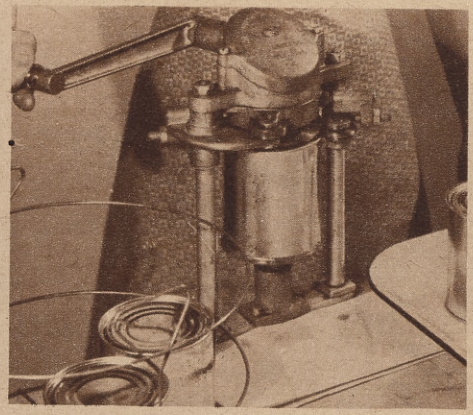
For canning meat in large pieces, select cuts commonly used for roasts, steaks, or chops. Cuts that contain more connective tissue or bone and small pieces may be canned as stew meat, or ground meat, or soup . . . keep them clean and cold until ready to can.

1. With a clean, damp cloth, wipe cuts chosen for canning in large pieces. Cut meat from bone. Set aside bones for soup.

2. Trim away most of the fat without unduly slashing the lean. Too much fat makes meat hard to process.

3. Wash tin cans in cool water—no soap—and rinse. Don't wash can lids. If you add salt, put it in empty cans: ½ teaspoon (level measure) in No. 2 can; ¾ teaspoon in No. 2½ can; 1 teaspoon in No. 3 can.

8. Wipe can lids with a damp cloth. If using paper gaskets, be sure to keep them dry. Place a lid on each can, gasket side down.



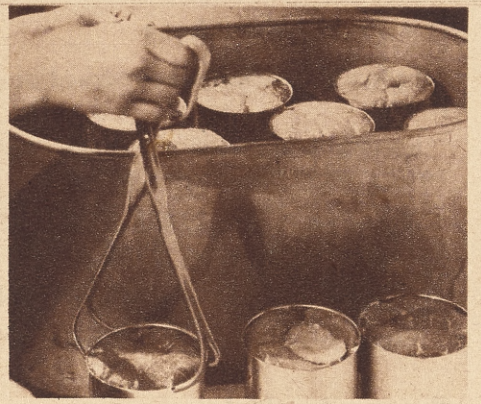
9. Seal cans immediately. Follow directions that came with your sealer. The finished seam between lid and can should be smooth and even. Wipe the sealed cans clean of grease . . . ready for canner.

10. Have about 3 inches of boiling water in steam-pressure canner . . . so it won't boil dry and be damaged. Place rack with cans in canner. A 7-quart canner will hold cans stacked two-deep.

11. Fasten lid securely on canner. Let steam pour from open pet cock or weighted gage opening for at least 10 minutes. Then shut pet cock or put on weighted gage.

. . . . . OR OTHER MEAT, RAW PACK

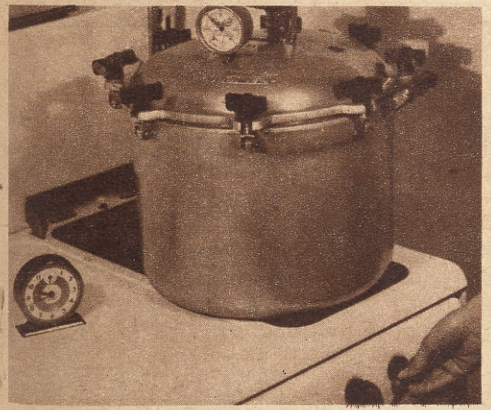
4. Cut meat in can-length strips, so that grain of the meat runs the length of the can. Use tidbits to fill space, or set them aside to can for stew meat, ground meat, or soup. Fill cans to top with one or more strips of meat.



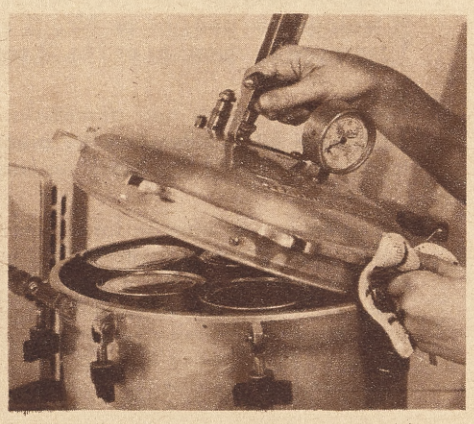
5. Set open cans in a large vessel with a good lid. Have water about 2 inches below can tops. Cover vessel and heat at slow boil.

6. If you have a thermometer, insert it to center of can. · Meat is ready when temperature at center of can is 170° F. If you have no thermometer, cook until meat is medium done, about 50 minutes.

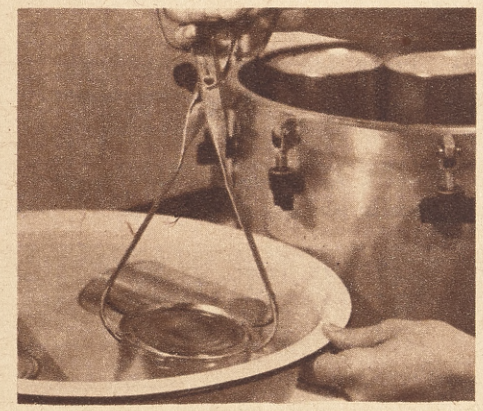
7. As you take out each can, press meat down about ½ inch below rim. Add boiling water, if needed, to fill can with liquid to top.



12. When pressure is at 10 pounds, note the time . . . adjust heat under canner to keep pressure steady. Process No. 3 or No. 2½ cans packed with large pieces of meat 90 minutes; process No. 2 cans 65 minutes. When time's up, slide canner from heat.



13. With No. 3 cans, let pressure fall to zero (about ½ hour), wait a minute or two, no longer, then slowly open pet cock. With smaller cans, open pet cock without waiting for pressure to fall. Unfasten cover, tilt lid far side up, to keep steam away from your face.



14. Take out cans with tongs or thick cloth and cool at once in clean, cold water—preferably running water—until cans are lukewarm . . . still warm enough to dry off quickly so as to prevent rust.

15. Stagger the cans as you stack them, to speed cooling. Before labeling, wipe clean and examine for leaky seals. Store in a cool, dry place.

CANNING TIMETABLE

POULTRY

Hot pack, with bone

1. Bone the breast, saw drumsticks off short, if desired, but leave bone in other meaty pieces, such as second joints. Trim off large lumps of fat. Sort into meaty pieces and bony pieces. Set aside giblets to can separately.

2. Broth or hot water will be needed as liquid. To make broth, use bony pieces: Cover them with cold water, simmer until meat is tender. Drain broth into bowl; skim off fat. Remaining meat stripped from bone may be canned as little pieces.

3. Pour hot broth or hot water over raw meaty pieces in cooking pan to cover meat. Put on lid and precook until meat is medium done, or, when cut, shows almost no pink color at center of pieces. Stir occasionally, so meat will heat evenly.

4. If salt is desired, put level measure into clean, empty containers: ½ teaspoon in pint jar or No. 2 can; ¾ teaspoon in No. 2½ can; 1 teaspoon in quart jar or No. 3 can.

5. Pack second joints and drumsticks. Have skin next to glass or tin. Fit breasts into center, smaller pieces where needed. Leave about 1 inch above meat in glass jars for head space; ½ inch in tin cans.

6. Cover meat with hot broth, using about ½ to ¾ cup for each quart container. Leave 1 inch for head space in jars; fill cans to top.

7. Work out air bubbles with knife. Add more liquid, if needed, to cover meat. Be sure to leave 1 inch head space in jars, and have tin cans filled to top.

8. Adjust lids on glass jars (p. 4); seal tin cans.

9. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**65 min.**	**No. 2 cans**	**55 min.**
Quart jars	**75 min.**	**No. 2½ and No. 3 cans**	**75 min.**

Hot pack, without bone

Follow directions for hot-packed poultry with bone, with these exceptions:

Remove bone—but not skin—from meaty pieces. You can bone poultry either raw, or after precooking.

Boned poultry must be processed in the steam pressure canner longer than poultry with bone. Process at 10 pounds pressure (240° F.)—

Pint jars	**75 min.**	**No. 2 cans**	**65 min.**
Quart jars	**90 min.**	**No. 2½ and No. 3 cans**	**90 min.**

Raw pack, with bone

1. Bone the breast, saw drumsticks off short, if desired, but leave bone in other meaty pieces, such as second joints. Trim off large lumps of fat. Sort into meaty pieces and bony pieces. Set giblets aside to can separately.

2. If salt is desired, put level measure into clean, empty containers: ½ teaspoon in pint jar or No. 2 can; ¾ teaspoon in No. 2½ can; 1 teaspoon in quart jar or No. 3 can.

3. Pack second joints and drumsticks. Have skin next to glass or tin. Fit breasts into center, smaller pieces where needed. Pack glass jars to about 1 inch of top; pack tin cans to top.

4. Set open jars or cans in large vessel with warm water about 2 inches below rim of jar or can. Cover vessel and heat at slow boil until meat in all containers is steaming hot and medium done, about 50 minutes in tin cans; 75 minutes in glass jars. If you have a thermometer, meat is heated enough when center of jar registers 170° F.

5. Adjust lids on glass jars (p. 4); seal tin cans.

6. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**65 min.**	**No. 2 cans**	**55 min.**
Quart jars	**75 min.**	**No. 2½ and No. 3 cans**	**75 min.**

CANNING TIMETABLE

Raw pack, without bone

Follow directions for raw-packed poultry with bone, with these exceptions:

Remove bone—but not skin—from meaty pieces before packing.

Boned chicken must be processed longer in the steam pressure canner than chicken with bone. Process at 10 pounds pressure (240° F.)—

Pint jars..... 75 min. No. 2 cans..... 65 min.

Quart jars..... 90 min. No. 2½ and No. 3 cans... 90 min.

GIBLETS

Because of flavor, it is best to can livers alone. Gizzards and hearts, may be canned together. Since these are ordinarily canned and used in small quantities, directions are given only for pint glass jars and No. 2 tin cans.

Hot pack

1. Put giblets in cooking pan. Cover with broth made from bony pieces, or hot water. Cover pan and precook giblets until medium done. Stir occasionally.

2. If salt is desired, put level measure into clean, empty containers: ½ teaspoon in pint jar or No. 2 can.

3. Pack giblets hot. Leave about 1 inch above meat in glass jars for head space; ½ inch in tin cans.

4. Cover giblets with hot broth or hot water. Leave 1 inch for head space in jars; fill cans to top.

5. Work out air bubbles with knife. Add more liquid, if needed, to cover meat. Be sure to leave 1 inch head space in jars and have cans filled to top.

6. Adjust lids on glass jars (p. 4); seal tin cans.

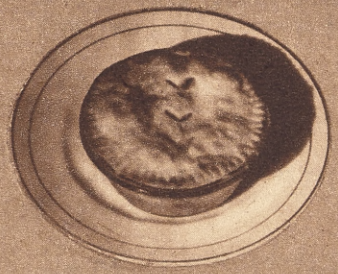
7. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars..... 75 min. No. 2 cans..... 65 min.

RABBIT

Prepare the meaty pieces, with or without bone, and pack and process as for chicken.

Acknowledgment is made to the research laboratories of the National Canners Association for aid in arriving at the processing times and temperatures given in this pamphlet.



CANNING TIMETABLE

BEEF, VEAL, PORK, LAMB

For canning as large pieces, use loin and other cuts suitable for roasts, steaks, or chops. For canning as stew meat, use the less tender cuts and smaller pieces.

Cut meat from bone. Set aside bones to make soup. Trim away most of the fat without unduly slashing the lean.

For larger pieces, cut into pieces that will slip easily into the glass jars or tin cans, with the grain of the meat running lengthwise.

The smaller pieces of stew meat are handled and processed just like larger pieces.

Hot pack

1. Put meat in large shallow pan; add just enough water to keep from sticking. Cover pan and precook meat slowly until medium done, stirring occasionally, so meat will heat evenly.

2. If salt is desired, put level measure into clean, empty containers: ½ teaspoon in pint jars or No. 2 cans; ¾ teaspoon in No. 2½ cans; 1 teaspoon in quart jars or No. 3 cans.

3. Pack meat hot. Leave about 1 inch above meat for head space in glass jars; ½ inch in tin cans.

4. Pour in hot broth or hot water to cover meat. Again leave 1 inch at top of glass jars for head space; fill tin cans to top.

5. Work out air bubbles with knife. Add more liquid, if needed, to cover meat. Be sure to leave 1 inch head space in jars, and have cans filled to top.

6. Adjust lids on glass jars (p. 4); seal tin cans.

7. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**75 min.**	**No. 2 cans**	**65 min.**
Quart jars	**90 min.**	**No. 2½ and No. 3 cans**	**90 min.**

Raw pack

1. If salt is desired, put level measure into clean, empty containers: ½ teaspoon in pint jars or No. 2 cans; ¾ teaspoon in No. 2½ cans; 1 teaspoon in quart jars or No. 3 cans.

2. Pack containers with raw, lean meat. Leave about 1 inch above meat in glass jars; fill tin cans to top.

3. Set open jars or cans in large vessel with warm water about 2 inches below rim of jar or can. Cover vessel and heat at slow boil until meat in all jars or cans is steaming hot and medium done, about 50 minutes in tin cans; about 75 minutes in glass jars. If you have a thermometer, meat is heated enough when center of jar or can registers 170° F. Press meat down into tin cans ½ inch below rims and add boiling water, if needed, to fill to top.

4. Adjust lids on glass jars (p. 4); seal tin cans.

5. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**75 min.**	**No. 2 cans**	**65 min.**
Quart jars	**90 min.**	**No. 2½ and No. 3 cans**	**90 min.**

GROUND MEAT

For grinding, use small pieces or meat from the less tender cuts, but make sure the meat is fresh and kept clean and cold. Never mix in scraps of doubtful freshness . . . they may spoil a whole batch; and don't use lumps of fat.

If desired, add 1 level teaspoon of salt to the pound of ground meat, mixing well.

Hot pack

1. Form ground meat into fairly thin cakes that can be packed in glass jars or tin cans without breaking.

2. Put meat cakes into cooking pan. Precook in oven until medium done or, when cut into, red color at center of cakes is almost gone.

CANNING TIMETABLE

Hot pack—Continued

3. Pack cakes hot. Leave 1 inch above meat in glass jars for head space; ½ inch in tin cans.

4. Skim fat off drippings and do not use the fat in canning.

5. Add water to the meat juice and use in filling jars or cans. Leave about 1 inch above meat in jars for head space; ½ inch in tin cans.

6. Work out air bubbles with knife. Add more liquid, if needed, to cover meat. Be sure to leave 1 inch head space in jars, and have cans filled to top.

7. Adjust lids on glass jars (p. 4); seal tin cans.

8. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**75 min.**	**No. 2 cans**	**65 min.**
Quart jars	**90 min.**	**No. 2½ and No. 3 cans**	**90 min.**

Raw pack

This method is suitable only for tin cans. It is difficult to get canned ground meat out of glass jars when packed this way.

1. Without forming cakes, pack raw ground meat solidly into tin cans level with the top.

2. Place open cans in large vessel with water about 2 inches below can rim. Cover vessel and heat at slow boil until meat in all cans is steaming hot and medium done, about 75 minutes. If you have a thermometer, meat is heated enough when center of can registers 170° F. Press meat down into cans about ½ inch below rim.

3. Seal tin cans.

4. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

No. 2 cans	**100 min.**	**No. 2½ and No. 3 cans**	**135 min.**

SAUSAGE

Use any tested sausage recipe, but omit sage as it is likely to give the canned sausage a bitter flavor. Go easy with other spices, onion, and garlic, because flavors change with processing and storing.

Shape sausage meat into cakes. Precook, pack, and process like ground meat, hot packed.

CORNED BEEF

Hot pack

1. Wash the corned beef, cut into pieces suited to packing.

2. Cover meat with cold water and bring to boil. If broth tastes very salty, drain and cover meat with fresh water, and parboil again.

3. Pack hot meat. Leave about 1 inch above meat in glass jars for head space; ½ inch in tin cans.

4. Cover meat with hot broth or hot water, using about ½ to ¾ cup for each quart container. Leave 1 inch for head space in jars; fill cans to top.

5. Work out air bubbles with knife. Add more liquid, if needed, to cover meat. Be sure to leave 1 inch head space in jars, and have cans filled to top.

6. Adjust lids on glass jars (p. 4); seal tin cans.

7. Process at once in the steam pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**75 min.**	**No. 2 cans**	**65 min.**
Quart jars	**90 min.**	**No. 2½ and No. 3 cans**	**90 min.**

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HEART AND TONGUE

The heart and tongue are generally used as fresh meat. If you do wish to can them follow directions for beef, veal, pork, lamb as hot packed, with these differences:

Heart.—Remove thick connective tissue before cutting into pieces.

Tongue.—Drop tongue into boiling water and simmer about 45 minutes or until skin can be removed, before cutting into pieces.

SOUP STOCK

1. Make fairly concentrated stock by covering bony pieces of chicken or other meat with lightly salted water and simmering until meat is tender. Don't cook too long, or soup will lose flavor.

2. Skim off fat, remove all pieces of bone, but don't strain out meat and sediment.

3. Pour hot stock into containers. Leave 1 inch at top of glass jars for head space; fill tin cans to top.

4. Adjust lids on glass jars (p. 4); seal tin cans.

5. Process at once in pressure canner at 10 pounds pressure (240° F.)—

Pint jars	**20 min.**	**No. 2 cans**	**20 min.**
Quart jars	**25 min.**	**No. 2½ and No. 3 cans**	**25 min.**

TO FIGURE YIELD OF CANNED MEAT FROM FRESH

Here is a table to help you figure how many glass jars or tin cans of meat you will get from a given quantity of fresh meat:

For a quart jar or No. 3 can, allow about—

5 to 5½ pounds of pork loin (untrimmed).

5 to 5½ pounds of beef rump (untrimmed).

3 to 3½ pounds of beef round (untrimmed).

4½ to 5½ pounds of chicken (dressed, undrawn) to be canned with bone.

7 to 8 pounds of chicken (dressed, undrawn) to be canned without bone.

WHEN CANNING IS DONE

Look for leaks

If you can in glass jars, test for leaks the day after canning when the jars are thoroughly cooled. (See picture story, p. 7.)

If you can in tin, examine seals when you wipe the cooled cans. (See picture story, p. 9.) Also set out any can that buckles and breaks its seams—too little food in the can, or too fast cooling causes this type of leak.

If any jar or can has leaked, either use the food at once or can it all over again, using another container: Heat the meat all through; then pack and process in the steam pressure canner for the same time as if meat were fresh.

Label plainly

Label each good glass jar or tin can, so that you will know the contents and date. If you canned more than one lot in a day, add the lot number. Then if any meat spoils, destroy as directed (see last column, this page), and watch that lot of containers closely.

To fasten paper labels on tin, use rubber cement; or, if labels are long enough, put glue along one end and wrap label smoothly around the can and lap the glued end over the other.

Occasionally, a tin can packed too full bulges at the ends when processing is over. Mark such a can, so you won't confuse it later with any can that may bulge because food spoils in storage.

Store cool and dry

Protect jars and cans of meat against bad conditions in storage—heat, freezing, dampness.

Heat is bad because if any bacteria do survive processing, the warmth may make them grow and multiply and spoil the food. Hot pipes behind a wall or strong direct sunlight sometimes make a shelf a hot spot.

Freezing does not spoil canned meat, but it may crack a jar or break a seal and let in bacteria. In an unheated storage place, you can protect canned meat from freezing to some extent by covering with old carpet or a blanket, or wrapping in newspapers.

Dampness is hard on tin cans or metal jar lids.

GUARD AGAINST SPOILAGE

Before opening any glass jar or tin can for use, inspect it well.

If it's a glass jar.—A bulging lid or rubber ring, gas bubbles, leakage—any of these may be a sign of meat that has spoiled.

If it's a tin can.—Press the end. Neither end should bulge or snap back, unless the can was sprung when processed. Both ends should look flat and curved slightly inward. Seams should be tight and clean, with no sign of leaks.

When you open a jar or tin can.—Look for other signs inside a jar or can. Spurting liquid and "off" odor are danger signals. A tin can should be smooth and clean inside and show very little corrosion.

If a metal lid of a jar or tin can has turned dark inside, this is not harmful. It is simply due to sulfur from the meat.

The broth over canned meats may or may not be jellied. If it is liquid, this is not a sign of spoilage.

It is possible for meat to contain the poison that causes botulism without showing any sign of spoilage. Heating will bring out a bad odor if botulinus toxin is present.

If the steam pressure canner is in perfect order and if every canning recommendation given has been accurately followed, there is no danger of botulism. But as a safety precaution, before tasting, turn out the meat into a pan, add a little water if needed, cover the pan and boil 20 minutes before adding any other ingredients. If any meat looks or smells queer after this, destroy without tasting.

If meat is not to be used at once or is to be used in salads or sandwiches, after boiling, chill immediately in a refrigerator or other place as cold.

Burn spoiled canned meat. Or add several spoonfuls of lye to the jar or can and let stand 24 hours—out of reach of children or pets. Then bury food and container. Play safe. Don't give people, animals, or poultry a chance to taste spoiled canned meat.

MORE INFORMATION

Other publications available from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C., are—

Freezing Meat and Poultry Products for Home Use. AWI–75.

Beef on the Farm—Slaughtering, Cutting, Curing. Farmers' Bul. 1415.

Pork on the Farm—Killing, Curing, and Canning. Farmers' Bul. 1186.

Lamb and Mutton on the Farm. Farmers' Bul. 1807.

Curing Pork. Country Style. AWI–108.

Poultry Cooking. Farmers' Bul. 1888.

Meat for Thrifty Meals. Farmers' Bul. 1908.

Home Canning of Fruits and Vegetables. AWI–93.

Take Care of Pressure Canners. AWI–65.

The following publication is available from the U. S. Department of the Interior, Washington 25, D. C.

Recipes for Cooking Domestic Rabbit Meat. Wildlife Leaflet 240.

Prepared by

BUREAU OF HUMAN NUTRITION AND HOME ECONOMICS

Agricultural Research Administration, U. S. Department of Agriculture

Washington, D. C.

February 1945

This publication supersedes in part Farmers' Bulletin 1762, Home Canning of Fruits, Vegetables, and Meats.

Directions for canning fruits and vegetables are given in Home Canning of Fruits and Vegetables. AWI–93.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1945—O—628162